

LEAD FORENSIC SCIENTIST (DIGITAL EVIDENCE)
CS-401-14

INTRODUCTION

This position is located in the Office of the Deputy Mayor for Public Safety and Justice (ODMPSJ) in the Department of Forensic Sciences (DFS). The mission of the DFS is to provide high-quality, timely, accurate, and reliable forensic science services using best practices and best available technology, focusing on unbiased science and transparency, to enhance public safety and health.

MAJOR DUTIES

As a leader the incumbent is responsible for performing the following:

Ensures that the strategic plans, mission, vision and values are communicated to the employees and integrated into strategies, goals, objectives, work plans, etc.;

Articulates and communicates to the team, projects, problems to be solved, actionable events, milestones, and/or program issues under review, and deadlines and time frames for completion;

Coaches the employees in best practices to use in selecting and applying appropriate problem solving methods and techniques, provides advice on work methods, practices and procedures, and assists the team and/or individual members in identifying the parameters of a viable solution;

Leads the team in identifying, distributing and balancing the workload and tasks among employees in accordance with established work flow, skill level and/or occupational specialization; making adjustments to accomplish the workload in accordance with established priorities to ensure timely accomplishments and ensuring that each employee has an integral role in developing the final product;

Trains or arranges for training for the employees in methods and techniques of team building and working in teams to accomplish tasks or projects, and provides or arranges for specific administrative or technical training necessary for accomplishing individual and team tasks;

Monitors and reports on the status and progress of work, checking on work in progress and reviewing completed work to ensure that the supervisor's instructions, priorities, methods, deadlines and quality are being met or have been met;

Serves as coach, facilitator and/or negotiator in coordinating team initiatives and in consensus building activities among team members;

Maintains program and administrative reference materials, project files and relevant background documents and make available policies, procedures and written instructions from the supervisor; maintain current knowledge to answer questions from team members on procedures, policies, directives, etc.;

Prepares reports and maintains records of work accomplishments and administrative information, as required, and coordinates the preparation, presentation and communication of work related information to the supervisor;

Represents the team in dealings with the supervisor or manager for the purpose of obtaining resources (e.g., computer hardware and software, use of overtime or compensatory time, etc.), and securing needed information or decisions from the supervisor on major work problems and issues that arise;

Reports to the supervisor periodically on team and individual work accomplishments, problems, progress in mastering tasks, work processes, and individual and team training needs;

Represents team consensus and conveys the team's findings and recommendations in meeting and dealing with other team leaders, program officials, the public and other customers on issues related to or that have an impact on the teams' objectives, work products and/or tasks;

Estimates and reports to the team on progress in meeting established milestones and deadlines for completion of assignments, projects and tasks, and ensures that all team members are aware of and participates in planning for achievement of team goals and objectives;

Researches, learns and applies a wide range of qualitative and/or quantitative methods to identify, assess, analyze and improve team effectiveness, efficiency and work products;

Leads the team in assessing its strengths and weaknesses and provides leadership to the team in exploring alternatives and determines what improvements can be made (e.g., in work methods, processes and procedures);

Approves emergency leave for up to three days; eight hours or less for medical appointments; and/or other types of leave as delegated by management;

Resolves simple, informal complaints of employees and refer others, such as formal grievances and appeals, to the supervisor or an appropriate management official;

Communicates team consensus and recommendations to the supervisor on team and individual awards, rewards and recognition;

Informs employees of available employee benefits, services and work related activities; and Intercedes on behalf of the team to inform the supervisor of performance management issues/problems and to recommend/request related actions, such as, assignments, reassignments, promotions, tour of duty changes, peer reviews and performance appraisals.

Digital Evidence Responsibilities are as follows:

Assists with strategic, operational, and tactical functions, which includes advanced and highly specialized computer forensic investigations and analyses, data recovery, and electronic discovery from digital media.

Provides ongoing analysis of technology trends to incorporate proven forensic investigation and supporting technologies into practice; and assists with the implementation, evaluation, and interpretation of DFS policies, projects, and procedures; and presents ideas and information.

Analyses digital and computerized physical evidence, utilizing a variety of methods; identifies, examines, interprets, and presents conclusions of electronic, computerized, and digital testing and comparison of evidence and known reference samples.

Provides advice as required on the collection of evidence in criminal cases, including those involving deaths, especially, when homicide is suspected; evaluates risks concerns or identifies hazardous materials in the laboratory.

Executes and implements a variety of advanced and highly specialized computer forensic and electronic discovery services from digital media including digital evidence preservation, forensic analysis, data and tape recovery, electronic mail extraction, and database examination; and digital media including a wide variety of electronic data storage and transfer devices, computers, laptops, PDAs, and images, spreadsheets and other types of files stored on these devices.

Evaluates and interprets computer-based evidence such as communications (email, chat, SMS, VoIP, etc.), documents, images, video, accounting data, various database extracts, and other information stored on electronic devices to develop information necessary to meet the objectives of the forensic investigation; and effectively report findings.

Performs advanced and highly specialized computer forensic analyses using established tools and techniques; recovers electronic data that has been deleted, erased, fragmented, hidden or encrypted from data storage devices; evaluate and maintain hardware and software necessary for the performance of computer related investigations;

Provides technology advisory services to other agencies and department staff to enhance forensic investigations and keeps current on new methodologies and forensic technology.

Conducts research to determine new and/or revised methods for performing analyses or to determine the effectiveness of current analytical methods.

Ensures evidence control procedures in order to maintain chain-of-evidence integrity is compliant and insures evidence is locked securely in a designate location before and after analysis.

Conducts research associated with scientific methods, techniques and testing.

Utilizes computer software to analyze results of tests in order to perform calculations and keep up-to-date on current studies, pamphlet, journals, and books for use in devising methods and tests. Devises charts, graphs, and tables as aids to conducting tests; evaluates laboratory test results in the area of concern; prepares technical reports on findings and project results.

Processes complex and complicated cases and conducts training in collecting digital evidence collection and analysis. Testifies in court as an expert witness in connection with processed, developed and/or preserved evidence; and any analytical or testing results.

Performs other related duties as assigned.

KNOWLEDGE REQUIRED BY THE POSITION

Mastery of and skill in applying a wide range of IT theories, principles, concepts, methodology and practices of computer science, and information and communications technology sufficient to perform mathematical and analytical laboratory work; and knowledge of and ability to apply Federal, state, and local laws, codes and regulations pertaining to forensic science, and the seizure and retention of data; and apply evidence collection and preservation procedures.

Mastery of hands-on experience with forensic investigations of systems, equipment and supplies used in a forensic laboratory including specialized scientific equipment, instrumentation and software; recent developments, current literature and sources of information related to the digital evidence specialty and the ability to modify analytical methods, to solve problems or respond to complex technical issues arising in digital evidence casework.

Mastery of and skill in personal, portable, and desktop digital devices and of mathematics and statistics as they relate to analytical laboratory work is required and expertise in preparing, storing, and retrieving data and knowledge of software affiliated with crime scene data.

Ability to make recommendations that significantly supports important internal office policies on digital forensic science.

Ability to lead and provide guidance and internal training to employees; and support to the supervisor.

Mastery of evidence collection, preservation and chain of custody rules/laws.

Advanced knowledge of or direct experience with ISO 17025 standards and the application of such towards laboratory accreditation and of intrusion tools and computer forensic methodologies, protocols, and tools.

Expert knowledge of the rules of evidence and methods used in presenting evidence in court, and policies and procedures for maintaining the chain-of-evidence integrity; and ability to research methods and techniques and current literature in the relevant scientific and forensic scientific fields.

Ability to perform complex scientific analyses and to adhere to quality assurance standards and processes with these methods; knowledge of operation, application, and maintenance of sophisticated scientific instruments.

Mastery of safety practices, procedures as they apply to analyses in the laboratory, particularly forensic laboratories and to work safely without presenting a threat to self or others.

Excellent communication skills both orally and in writing to make presentations, prepare technical forms and required reports and skill in articulating concerns and position on complex issues, and ability to listen to, work with, and elicit cooperation among and from others.

Ability to testify effectively in court.

SUPERVISORY CONTROLS

Works under the Forensic Scientist Supervisor (Digital Evidence Analysis Unit), who provides administrative direction on new and unusual techniques, desired results, required data to obtain, change in regulatory constraints, or methods and procedures that may apply to specific cases. The incumbent independently plans and carries out lead and individual assignments; and determines the validity of test methods and results and recommends acceptance or rejection of evidence items. Exercises independent responsibility and is held accountable for actions and findings; and consults and keeps the supervisor apprised of unusual technical problems, best practices and controversial issues.

Guidelines include leadership protocol, policies and procedures of DFS; governing laws and regulations of the District and Federal government, Mayor's Orders, instructions, and the Deputy Mayor's policy and priorities. Relevant legislation and standards include documents and resources from International Operations Standards (ISO), American Society of Crime Laboratory Directors-Laboratory Accreditation Board Standards (ASCLD-LAB), Forensic Quality Services (FQS), ASTM International Inc. (ASTM), American Association for Laboratory Accreditation (A2LA), Clinical Laboratory Improvement Amendments (CLIA), Centers for Disease Control (CDC), National Institute of Standards and Technology (NIST), forensic community working groups, international standards relevant to forensic science, and others. Also methods, processes, techniques, procedures, protocols, testing regulations, previous cases, technical references, forensic techniques and literature, catalogs and handbooks, internal protocol and instructions, including international "best practices" among others.

Sound judgment is exercised when selecting, interpreting, or adapting available standards and guidelines to specific work situations and/or cases, however, many situations are not covered by the guidelines, and therefore, requires extensive interpretation and adaptation or research.

COMPLEXITY

Adaptability and flexibility is required in order to adhere to protocols is essential; develops and validates criteria for testing parameters with new methods and equipment as well as training team members to perform the same. Maintains quality control measures and prepares detailed documentation of test results. Provides appropriate leadership in the application of procedures; and identifies problems and anticipates discrepancies in the results. The work requires assessing, evaluating, modifying and adapting various methods to satisfy requirements and to arrive at sound conclusions.

Decisions regarding what needs to be done include major areas of uncertainty in approach, methodology, or interpretation and evaluation processes that result from such elements as continuing changes in program, technological developments, unknown phenomena, or conflicting requirements.

SCOPE AND EFFECT

The work involves performing and leading a team in isolating and defining unknown conditions, resolving critical problems, or developing new theories, technical adequacy, and effectiveness of submitted evidence. Conducts and assists team members when required to perform technological investigations including collecting appropriate exhibits to prepare for examination/testing; and prepares documentation regarding findings and analysis that are instrumental in preparing results of the tests; and identifying problems that may alter collected evidence; and ensures that all documentation is in the appropriate order for court cases and/or final discovery.

The result of the work may affect other experts and/or the department's credibility adequacy, accuracy and effectiveness of the field investigations, and laboratory tests, and ensures its relevancy to each to assist with closure. The results are also binding and affect judicial proceedings.

PERSONAL CONTACTS

Contacts are with DFS officials, employees, laboratory personnel, consultants, Federal and District regulatory agencies, the general public, law enforcement, and investigators, and other stakeholders.

PURPOSE OF CONTACTS

Contacts are for the purpose of influencing and motivating persons or groups in order to obtain the desired effect, such as gaining compliance with established policies and regulations by persuasion or exchanging and gathering information, ensuring the orderly flow of work as it pertains to maintaining the chain-of-custody of collected evidence, and storage, and to prepare detailed reports.

PHYSICAL DEMANDS

Work is sedentary, however, some work requires periods of walking, standing, bending, stretching etc. Also, some work requires sufficient personal agility to collect and process evidence at a variety of crime scenes. Occasionally carry items weighing up to 50 pounds, such as bags and/or boxes of evidence, portable computers, peripherals, and other similar materials. Incumbent must possess sufficient manual dexterity to manipulate and operate laboratory equipment; must be able to visually distinguish color, shape, size, number and picture resolution quality; must be able to withstand exposure to disagreeable elements such as malodorous and/or decomposing samples/bodies, blood, bodily fluids, etc., that may pose a health risk.

WORK ENVIRONMENT

The work is performed in an office, a laboratory and in the field. The office setting is when preparing documentation, the laboratory setting is during the testing and analysis phase, and the field when identifying and collecting evidence.

The incumbent may be exposed to hazardous materials, toxic substances, blood borne pathogens, and electric current and electrostatic discharge and is required to follow safe laboratory practices and wear protective clothing, including wrist straps, facial masks, safety glasses, gloves, etc.

OTHER SIGNIFICANT FACTS

Bachelor's degree from an accredited college or university in computer science, information and communications technology, or related field. Higher degree and/or industry certification favorably considered and seven (7) years of relevant experience in Digital Evidence at the Forensic Science III Class or equivalent. Employees at this level are distinguished from the Forensic Scientist III by their leadership of the Digital Evidence section, and their recognized expertise and ability to teach and instruct less experienced staff.

Applicant may be exposed to material containing explicit imagery, audio and text associated with child exploitation and abuse and/or extreme violence in the course of digital evidence analysis.

SPECIAL REQUIREMENTS

This position's duty station will be housed within the Consolidated Forensic Laboratory (CFL) which is a protection-sensitive facility. As such, incumbents of this position shall be subject to criminal background checks, background investigations, and mandatory drug and alcohol testing, as applicable.

The nature of the DFS mission necessarily involves the potential risks associated with biological or chemical hazards, including morgue functions. Although contact with these functions is intended to be minimal, the risks are nevertheless possible; training to recognize, address, and mitigate these risks is required as is dealing with potentially personally difficult topics, such as crime, death, and disease.